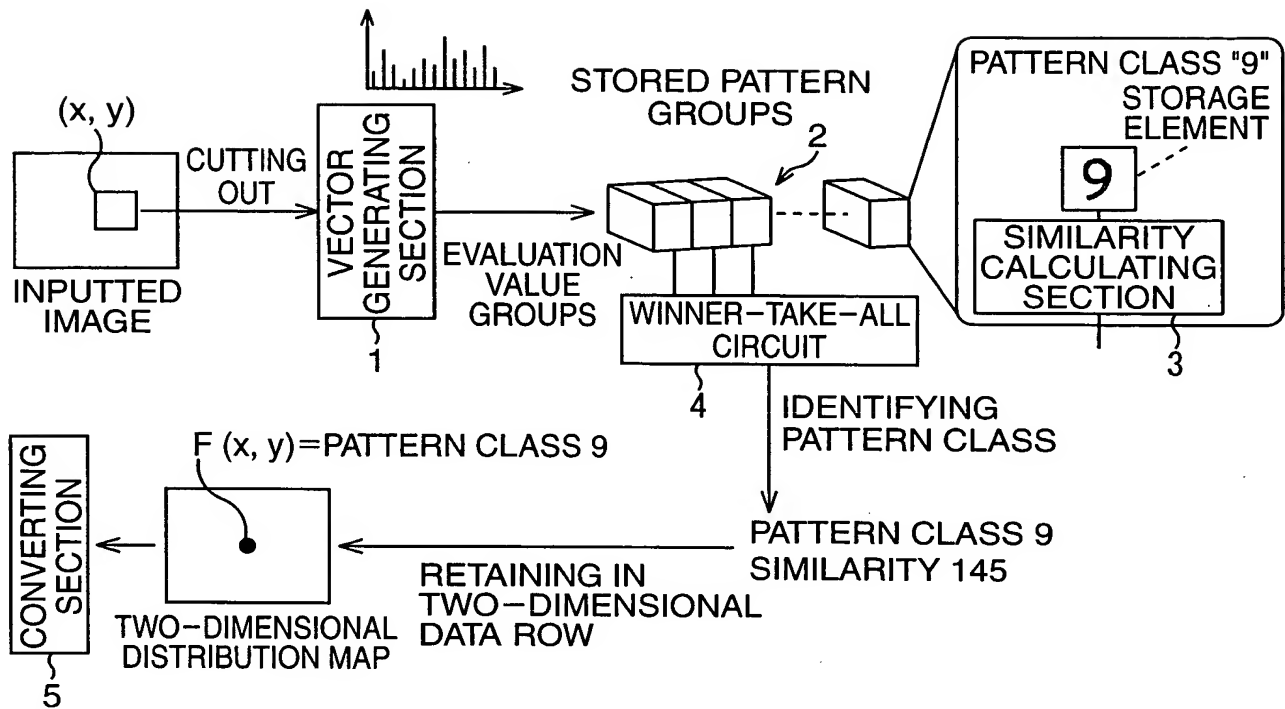


FIG. 1A



SCHEMATIC DIAGRAM OF WHOLE SYSTEM

FIG. 1B

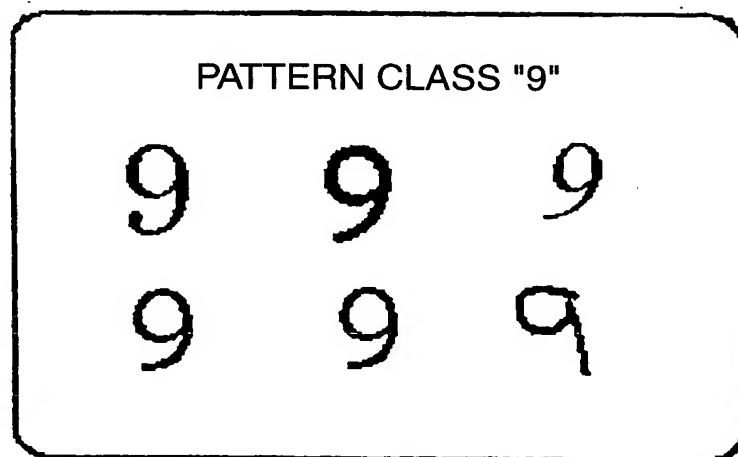


FIG. 2

0123456789

CHARACTERS OF 72PT TIMES NEW ROMAN
FONT USED AS TEMPLATES

FIG. 3

ABCDEFG
0123456789

FIG. 4

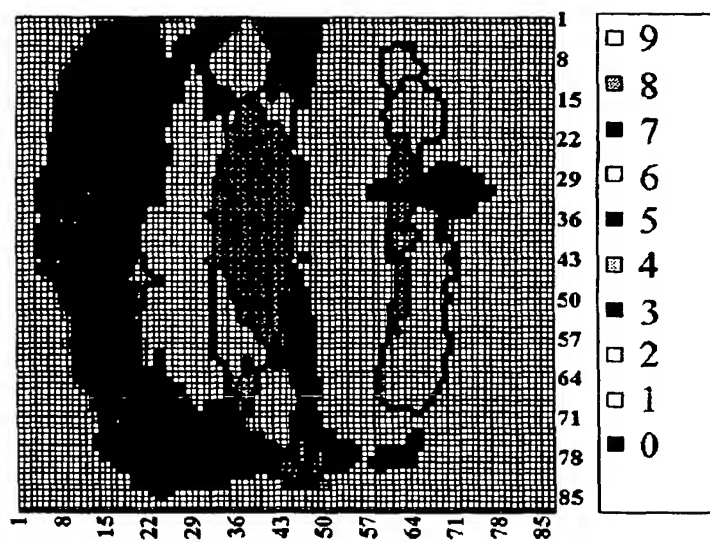


FIG. 5

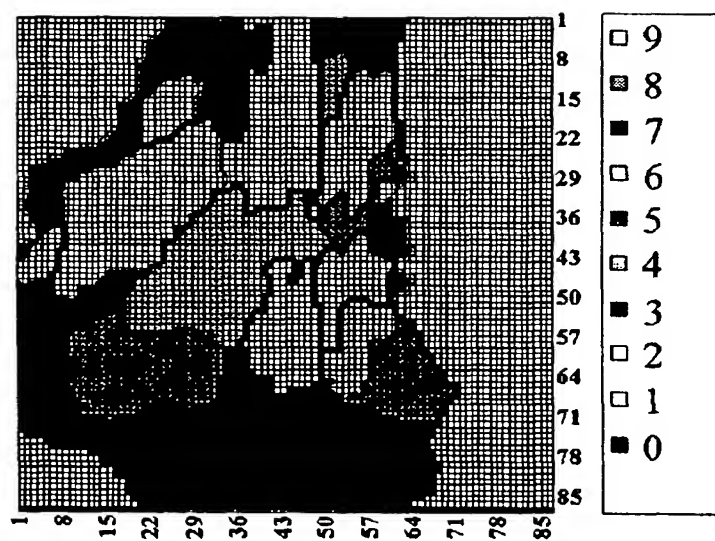


FIG. 6

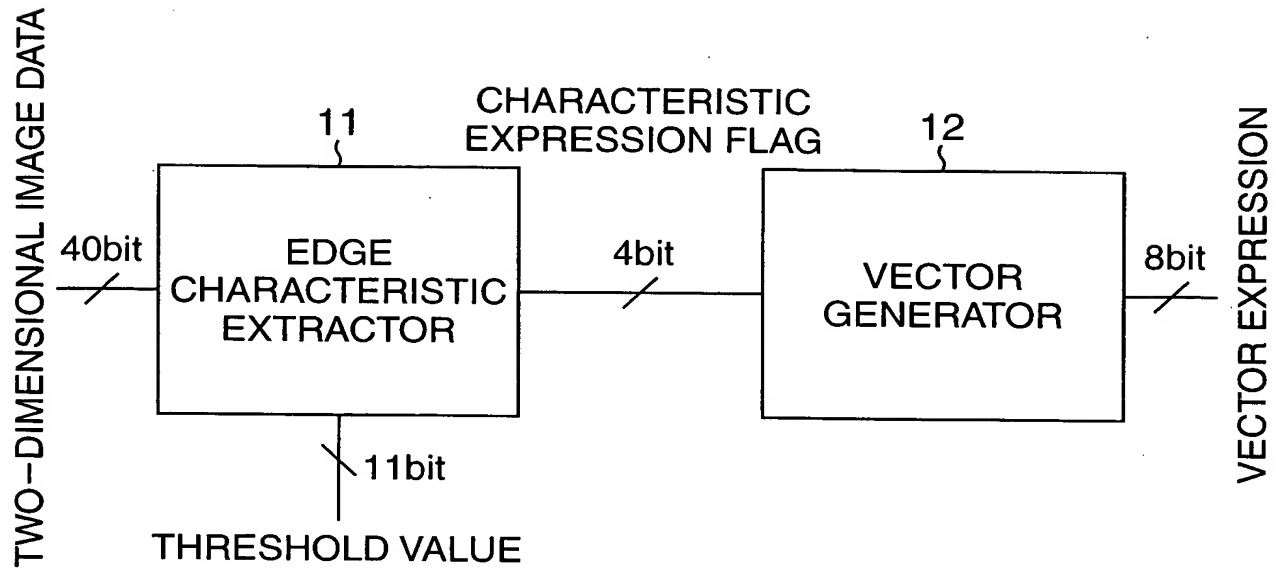


FIG. 7

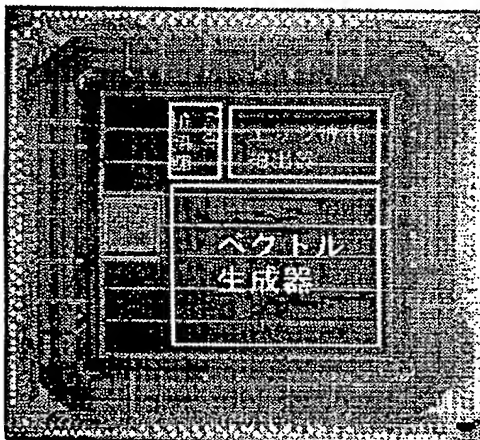
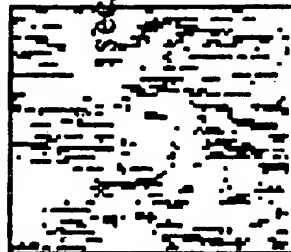
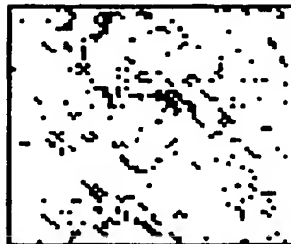
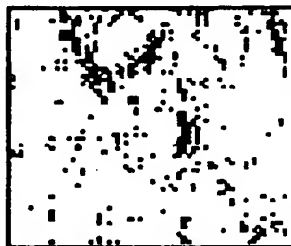


FIG. 8

UTILIZING EDGE CHARACTERISTIC EXTRACTOR

CALCULATING TIME: $160\mu\text{SEC}$.
POWER CONSUMPTION: 26MA

INPUTTED IMAGE



(SELLA PATTERN)



UTILIZING VECTOR GENERATOR

CALCULATING TIME: $160\mu\text{SEC}$.
POWER CONSUMPTION: 20MA

POWER SUPPLY VOLTAGE OF VLSI: 3.3V
OPERATING FREQUENCY: 25MHZ

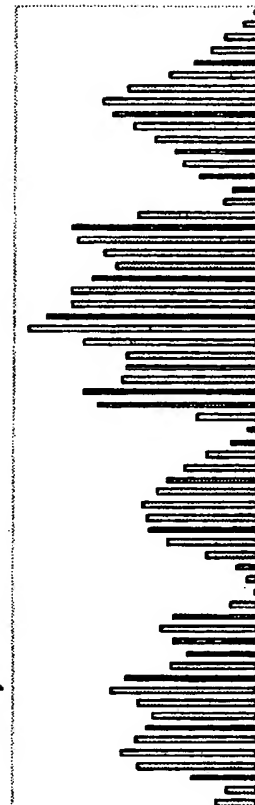


FIG. 9

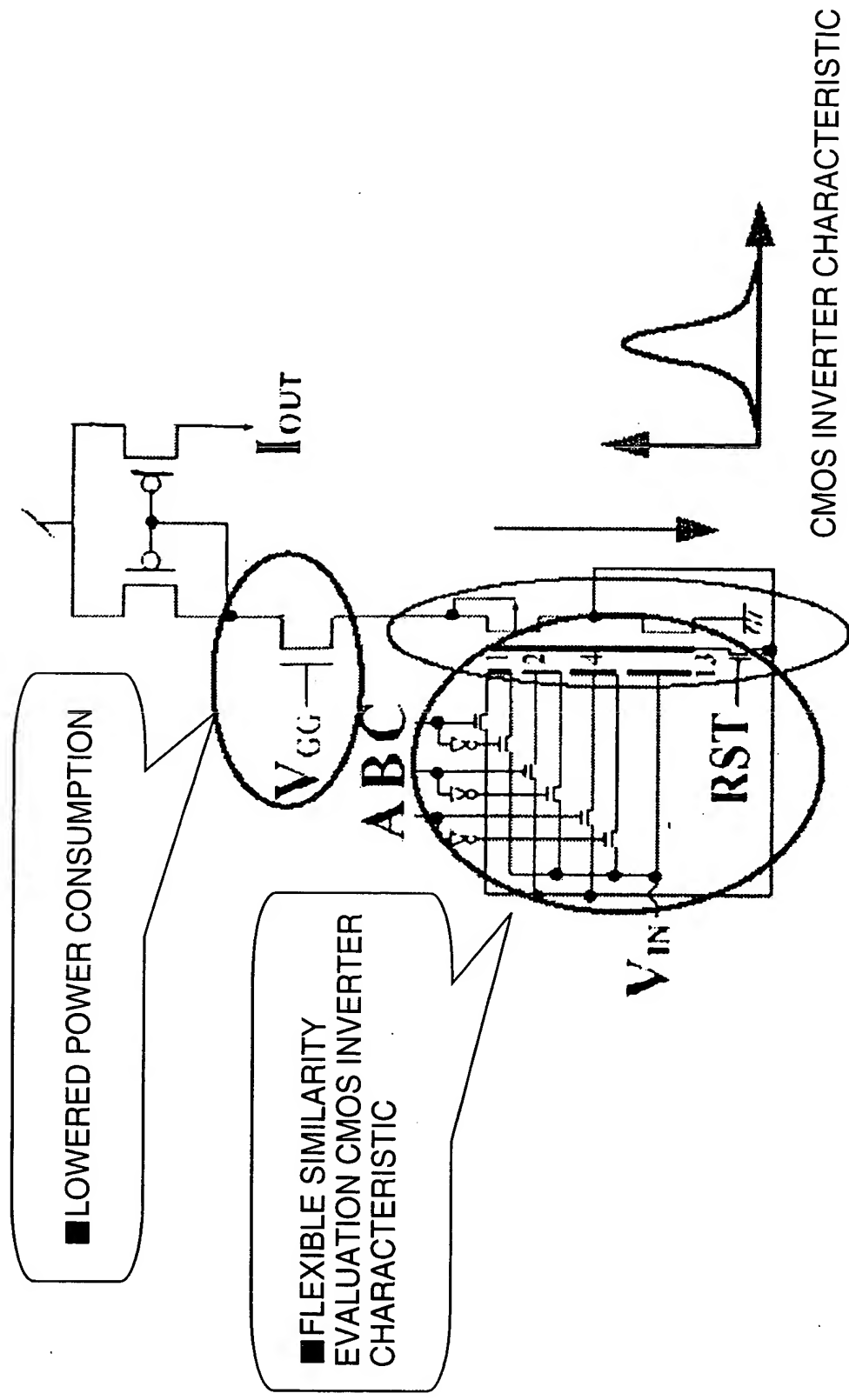


FIG. 10

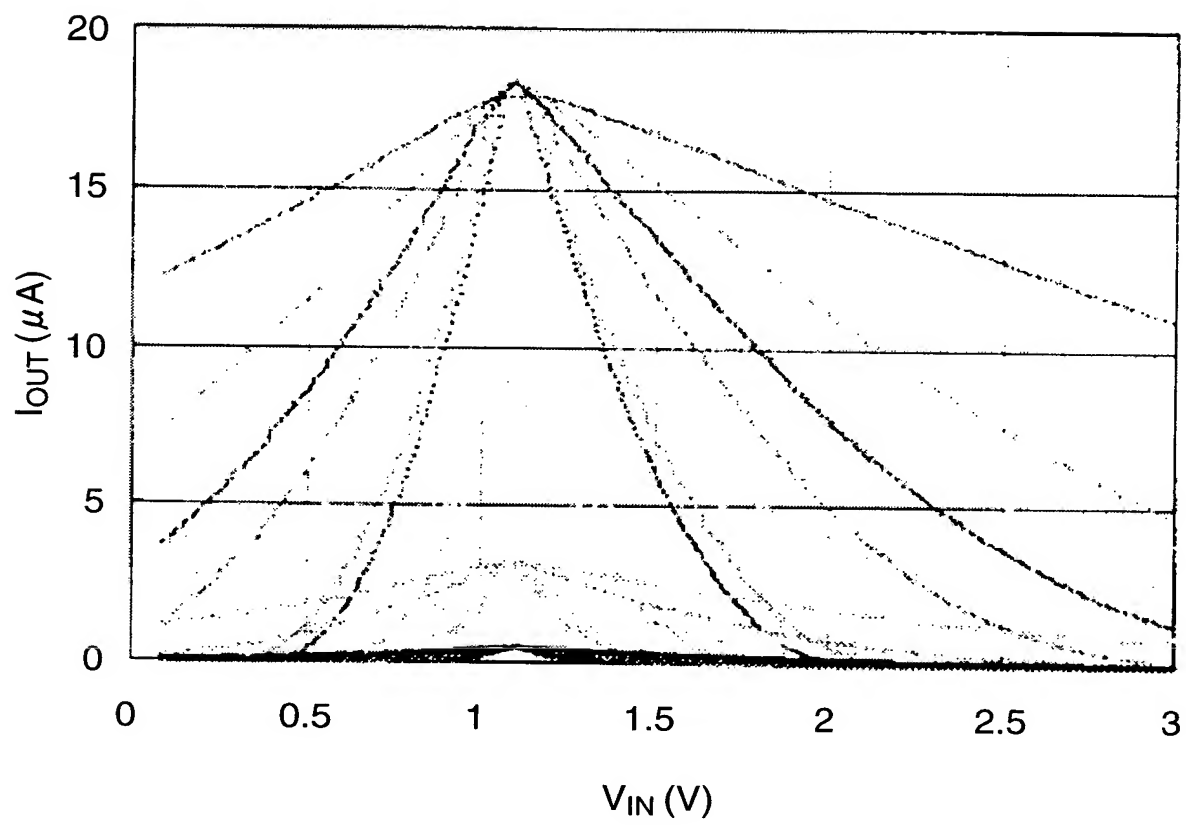


FIG. 11

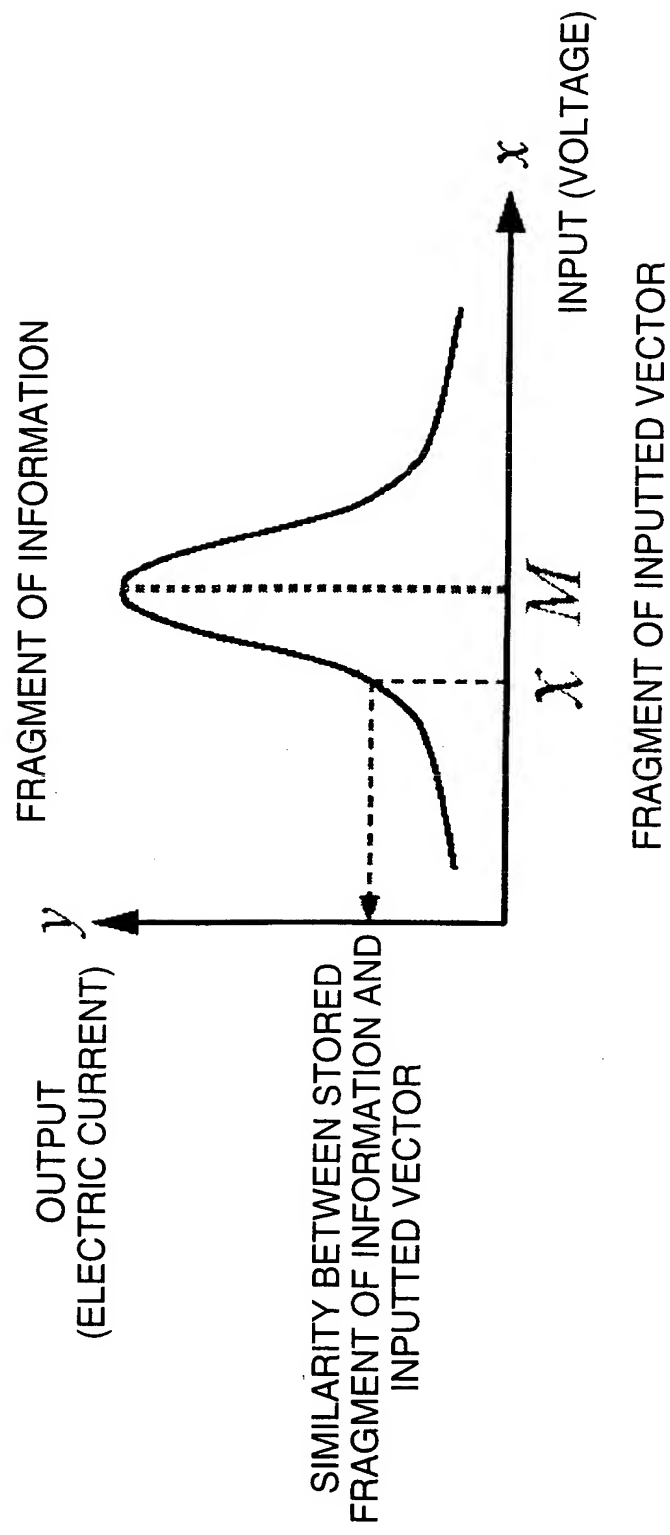


FIG. 12

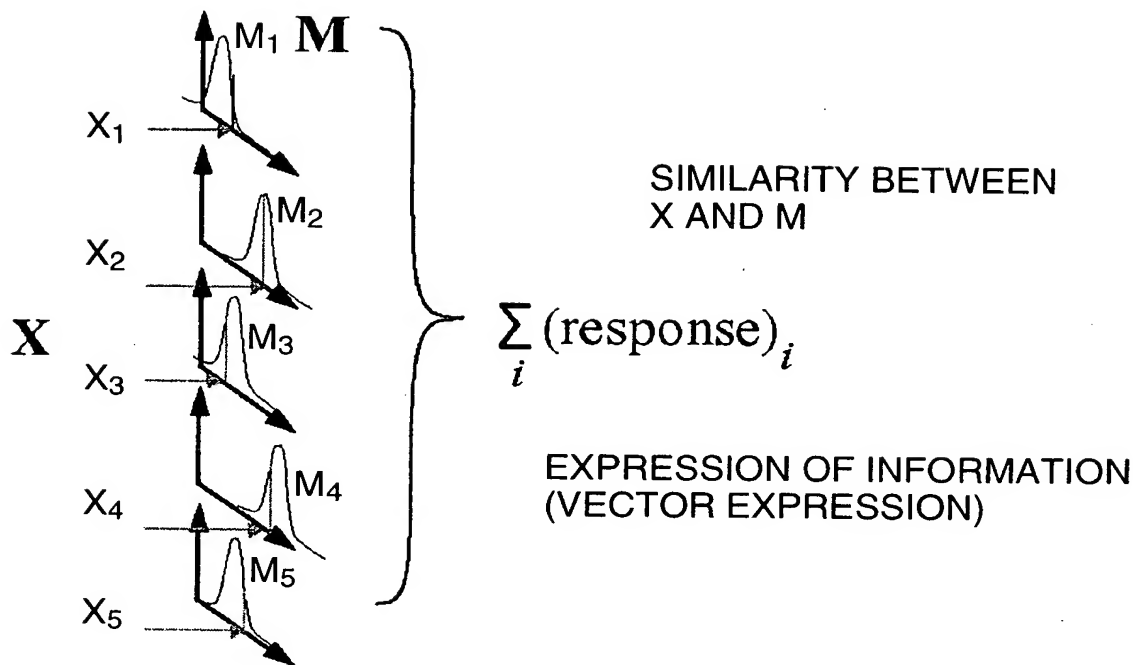
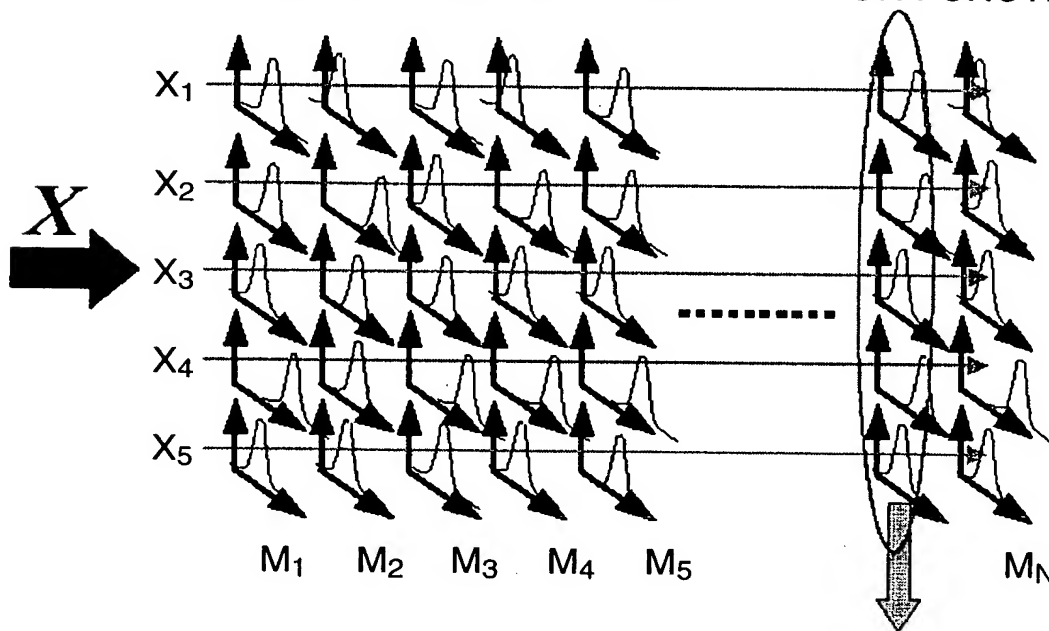


FIG. 13

DATA RETENTION OF PLURAL PATTERN GROUPS AND
REALIZATION OF SIMILARITY CALCULATION FUNCTION



THE MOST SIMILAR PATTERN CLASS

FIG. 14

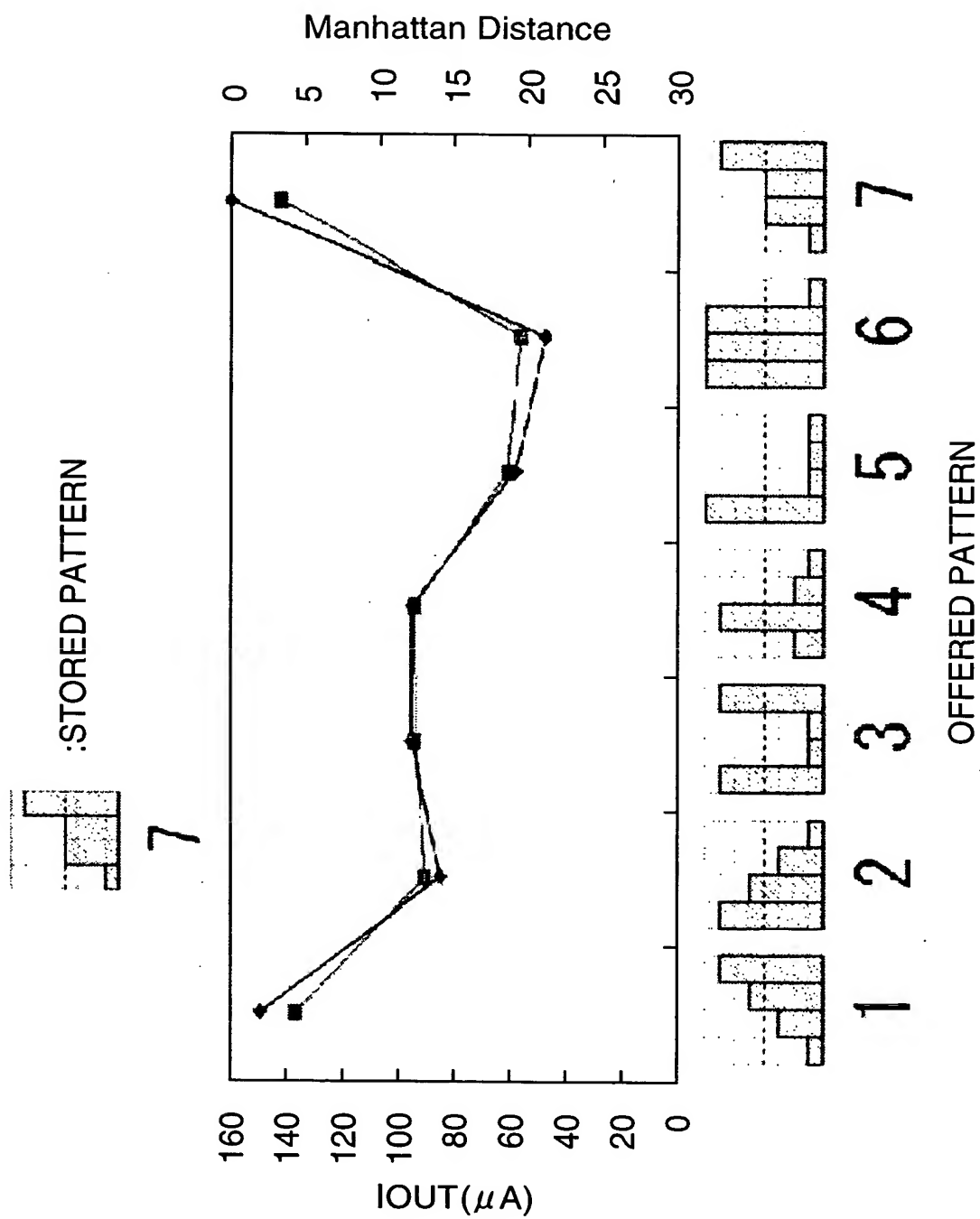


FIG. 15

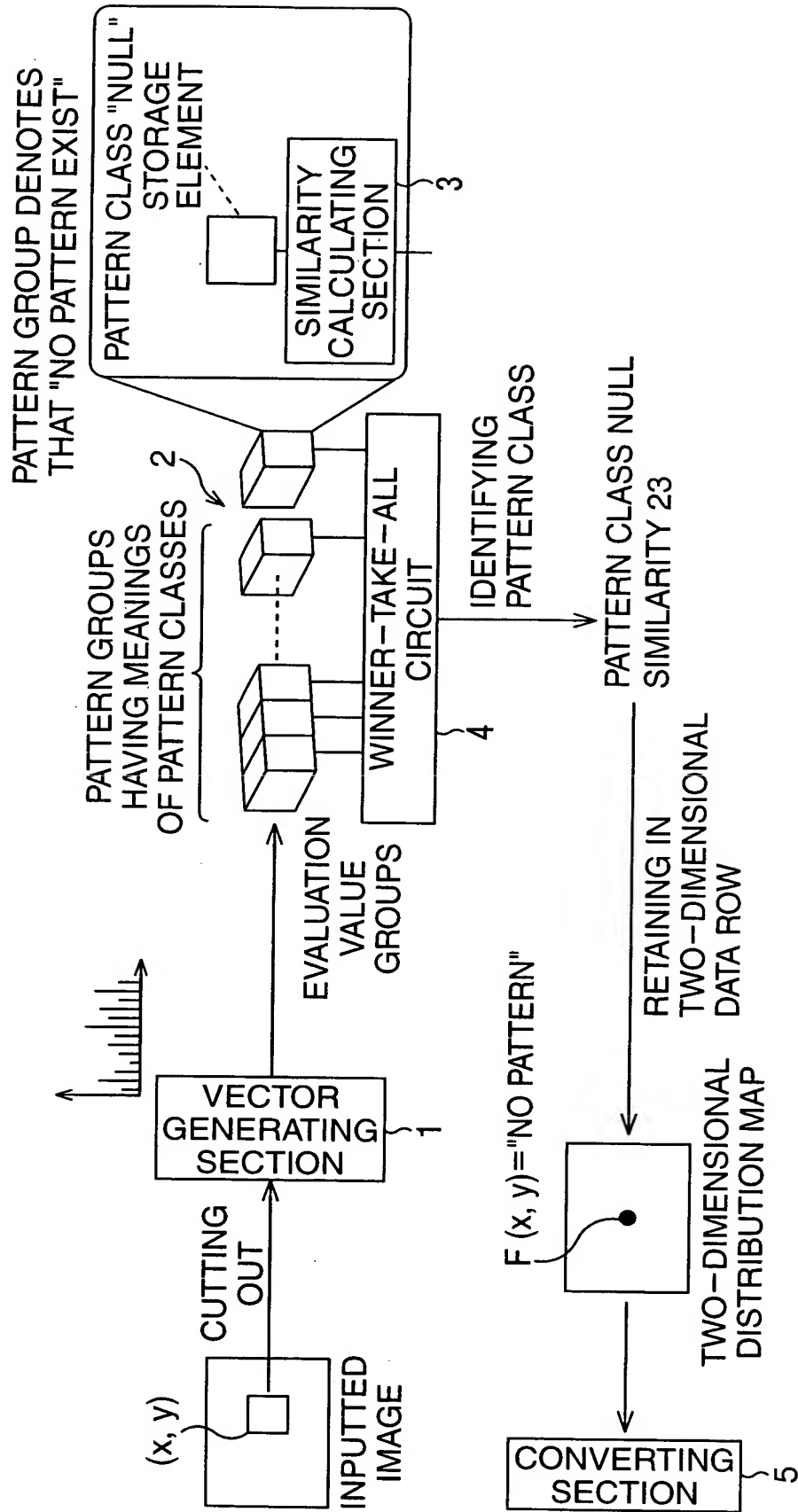


FIG. 16

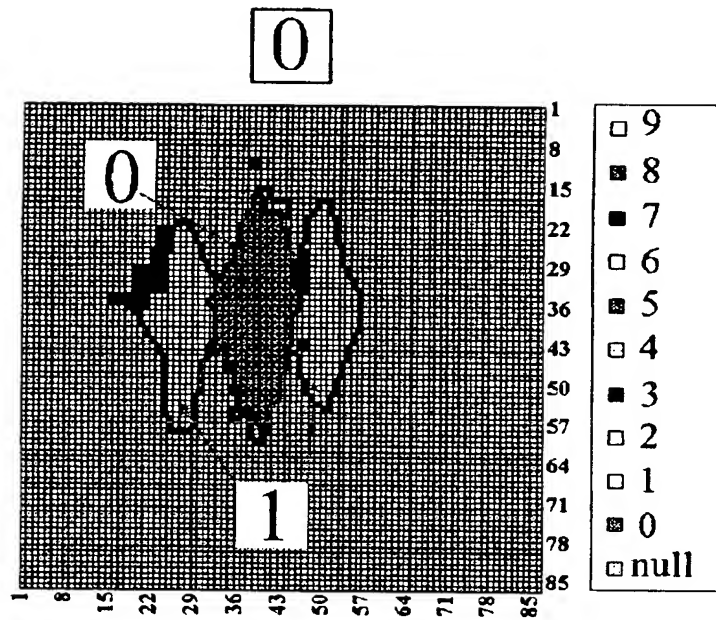


FIG. 17

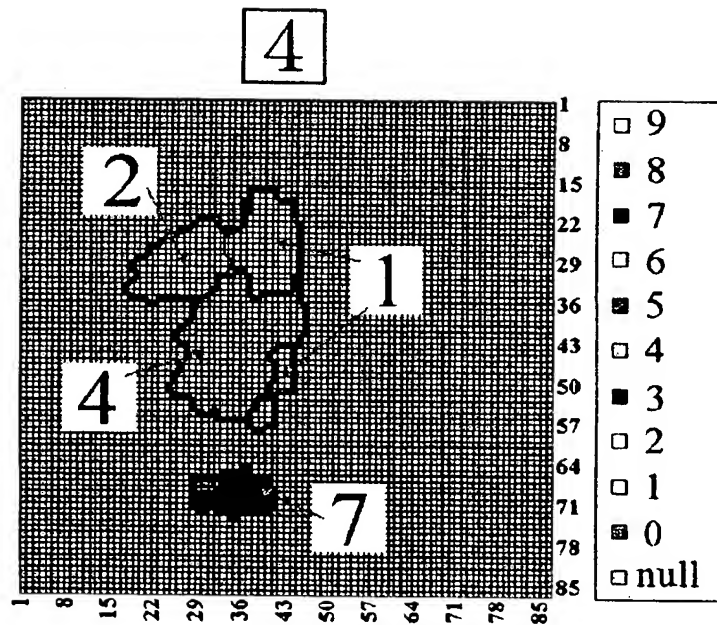


FIG. 18

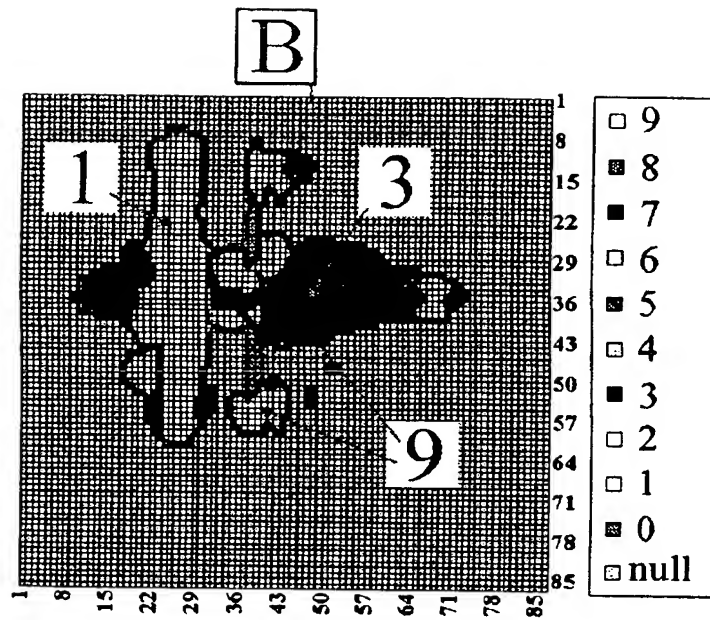


FIG. 19A

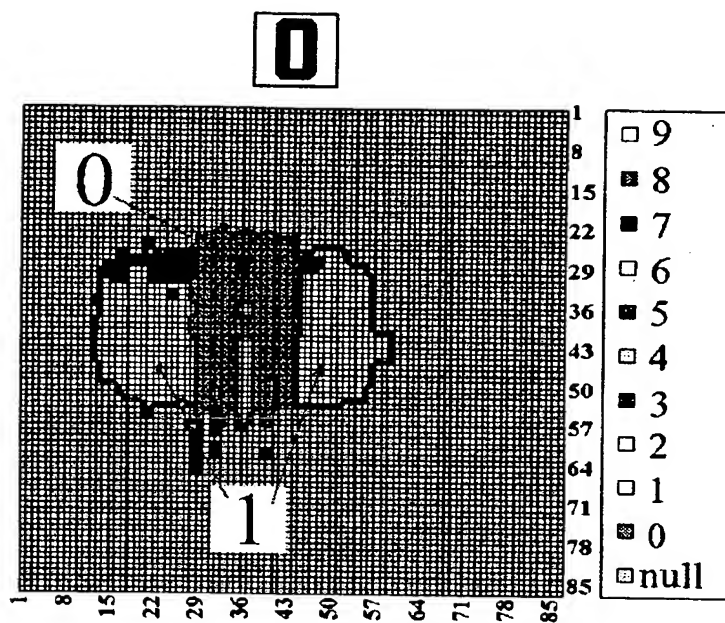


FIG. 19B

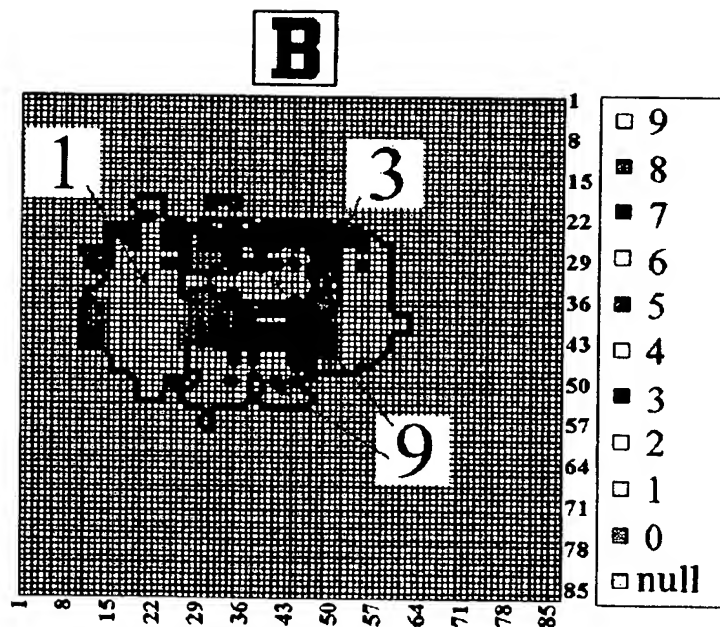


FIG. 20A

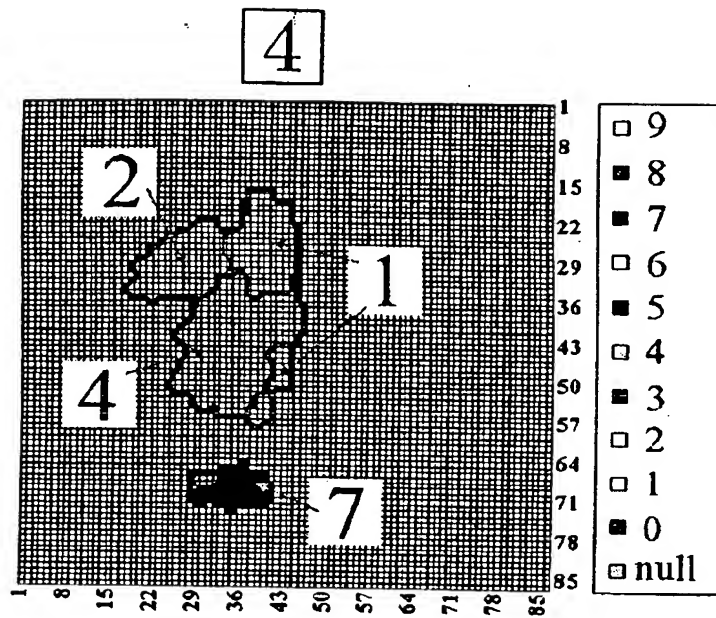


FIG. 20B

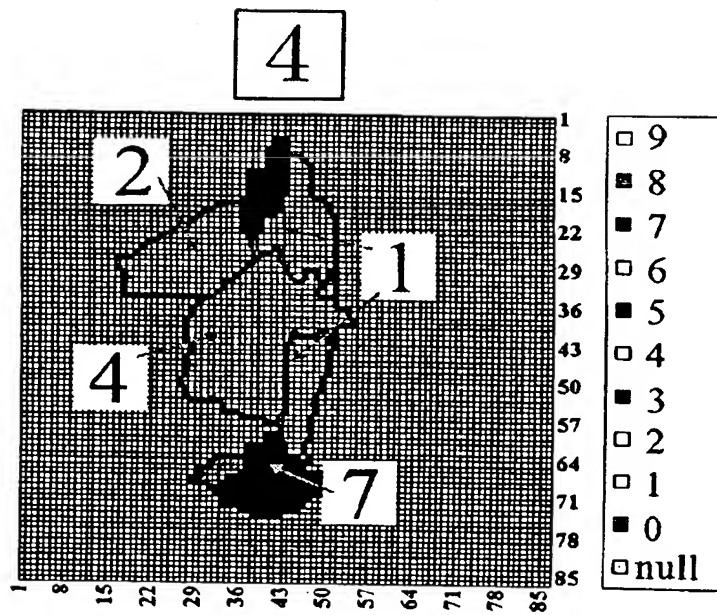


FIG. 21A

4

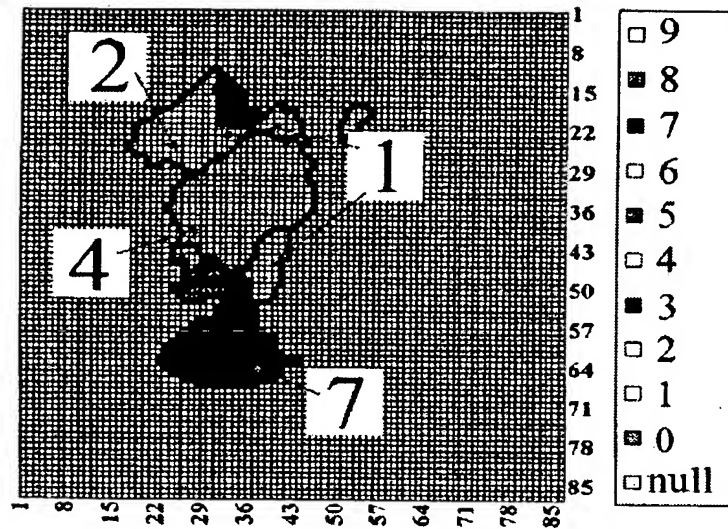


FIG. 21B

B

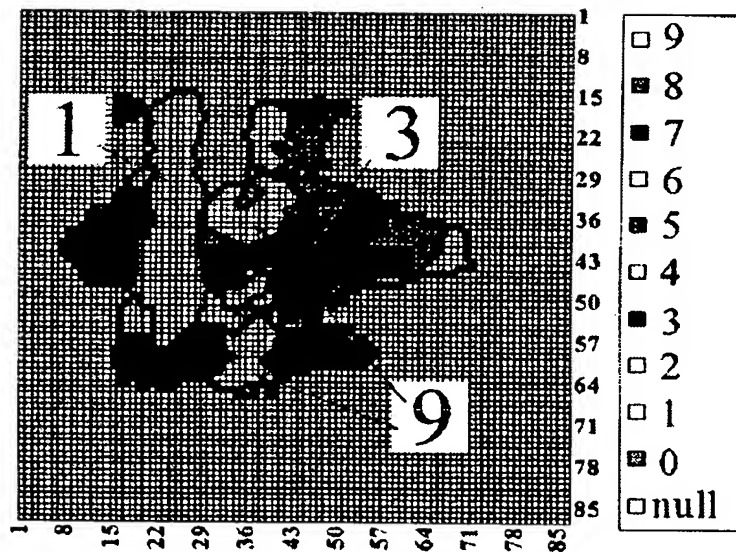


FIG. 22

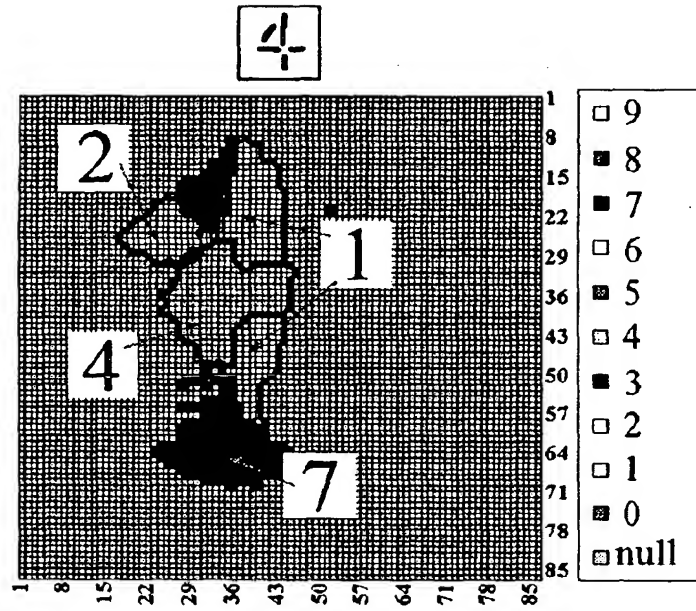


FIG. 23A

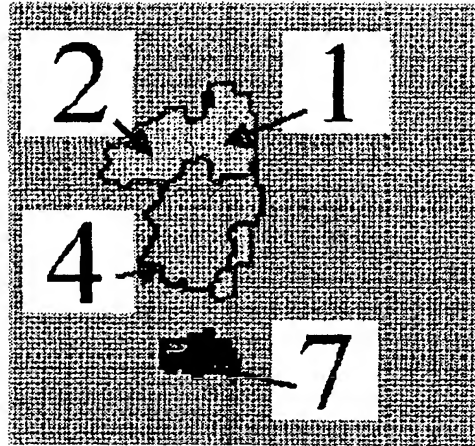


FIG. 23B

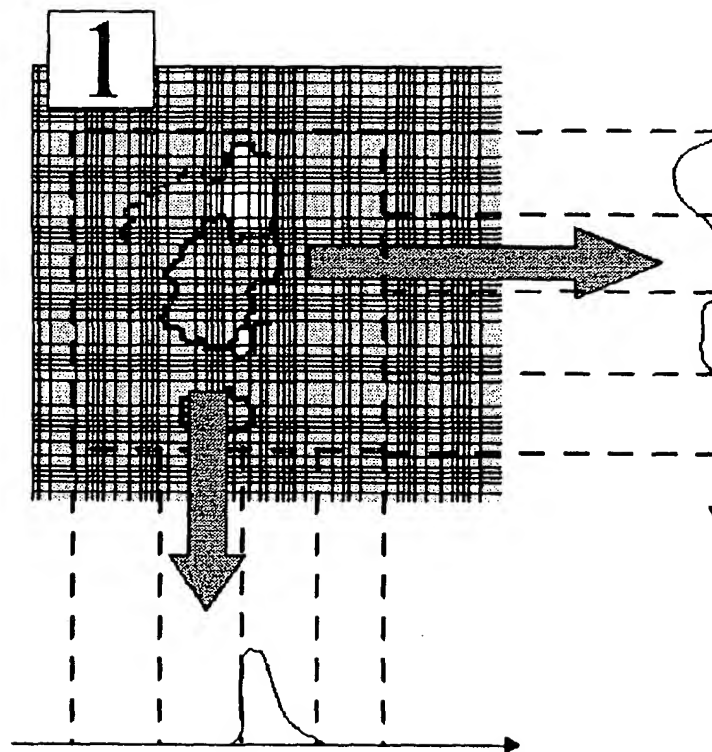


FIG. 24

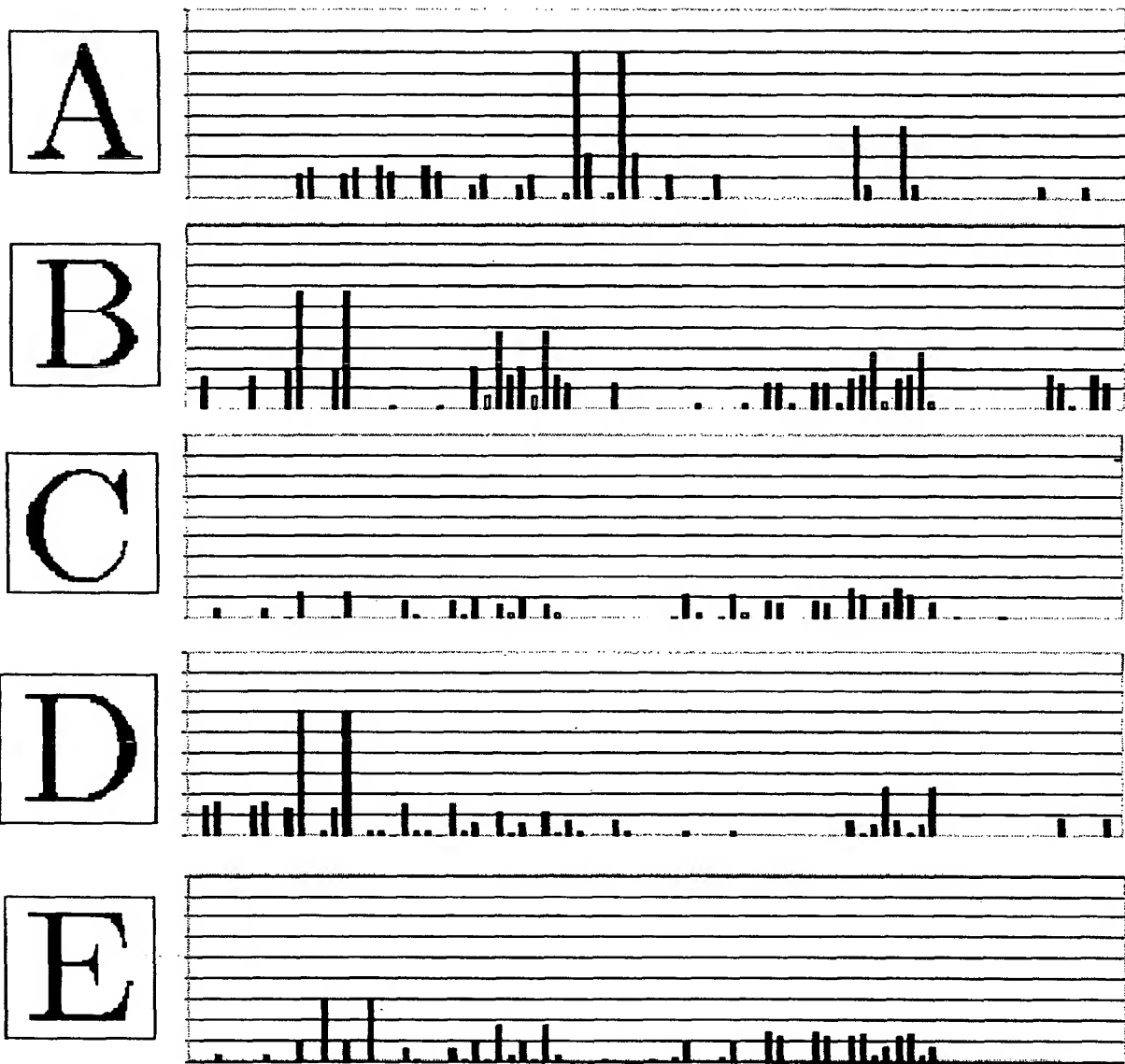
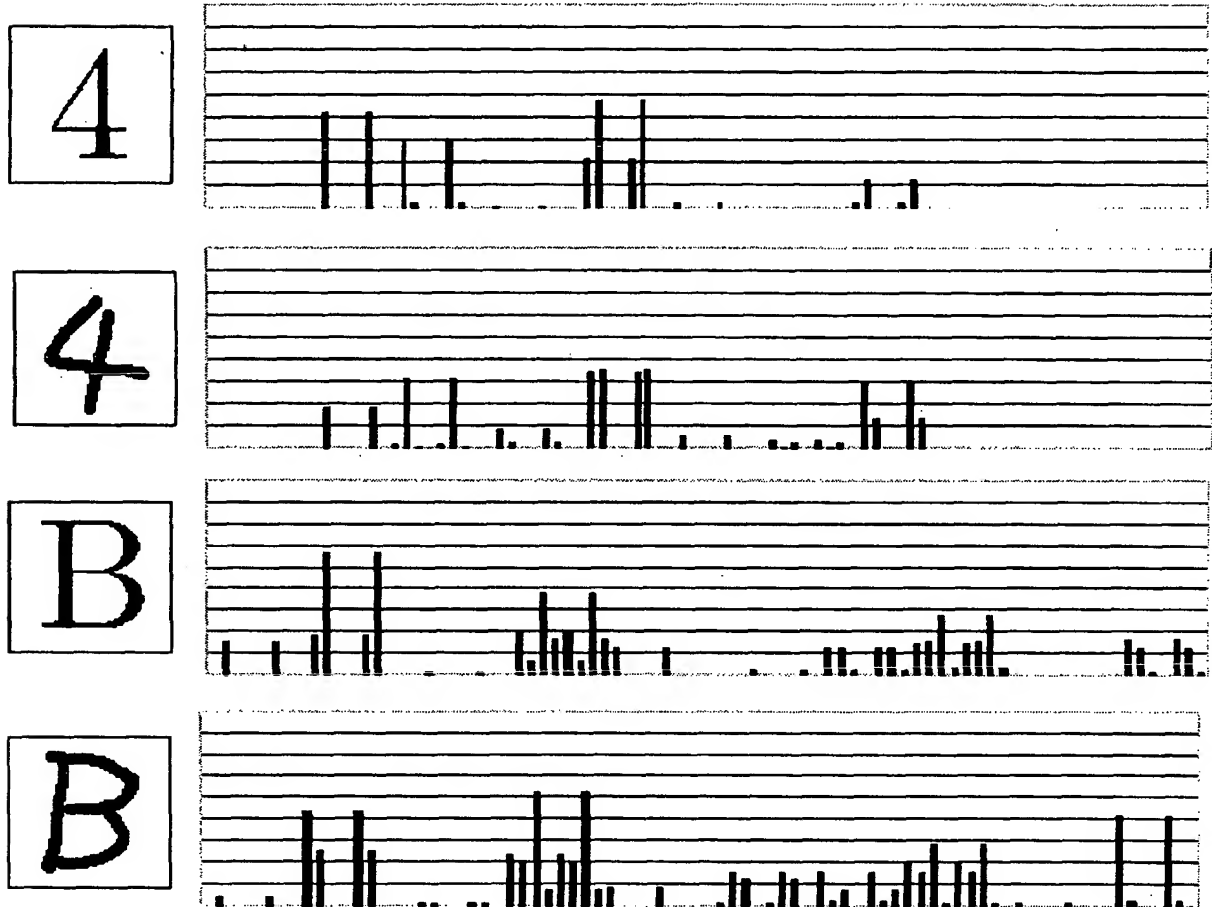


FIG. 25



EXAMPLES OF ONE-DIMENSIONAL NUMERIC VALUES (VECTORS)
GENERATED BY DISTRIBUTION MAPS
(NUMERIC CHARACTER "4" OF 72 PT EUCLID FONT
AND HAND WRITTEN CHARACTER "4")

FIG. 26

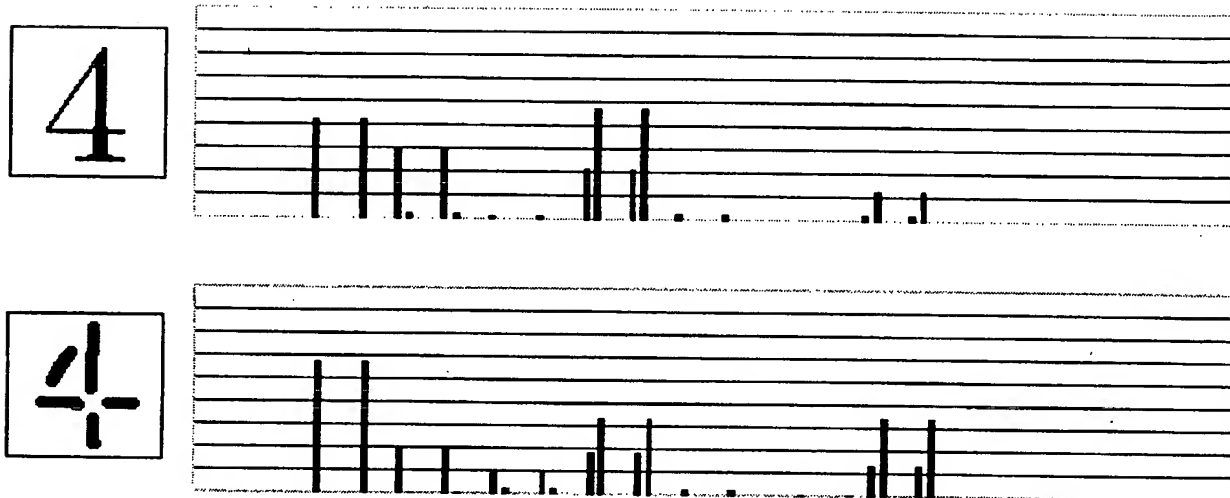


FIG. 27

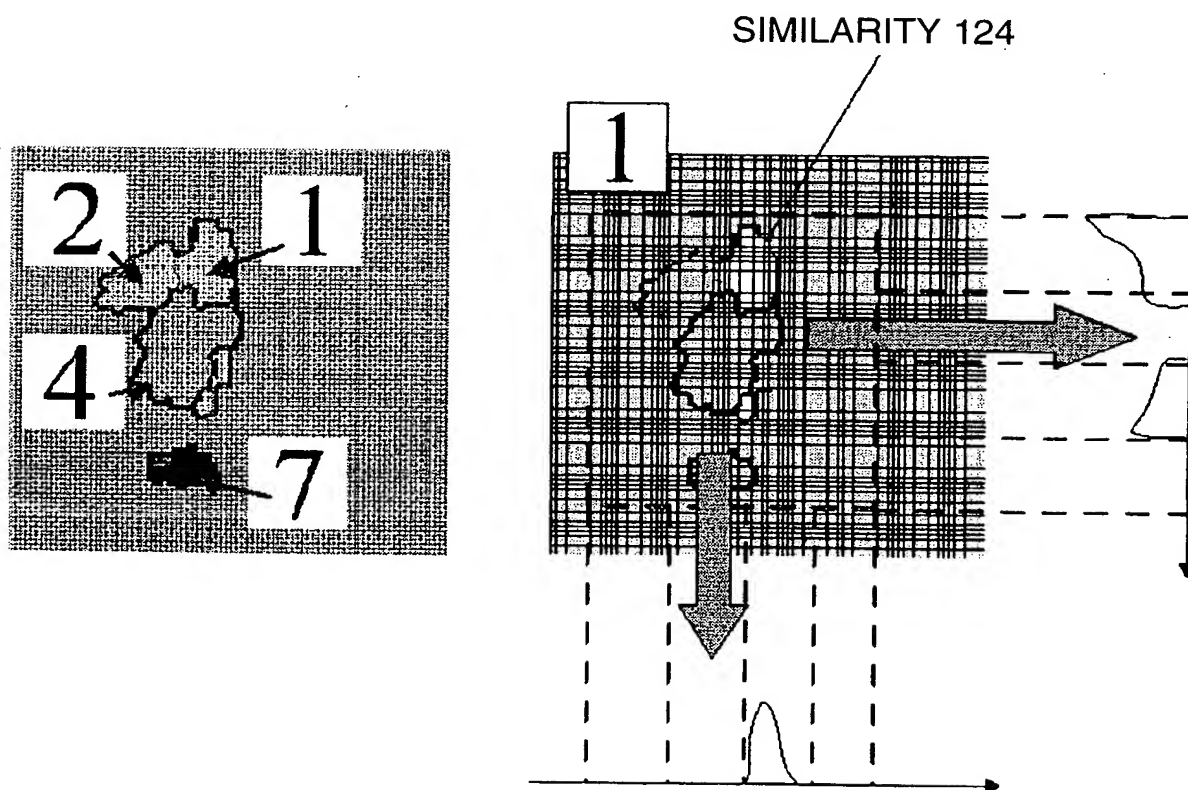
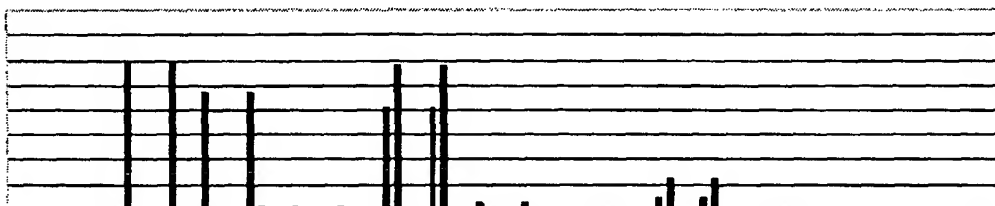
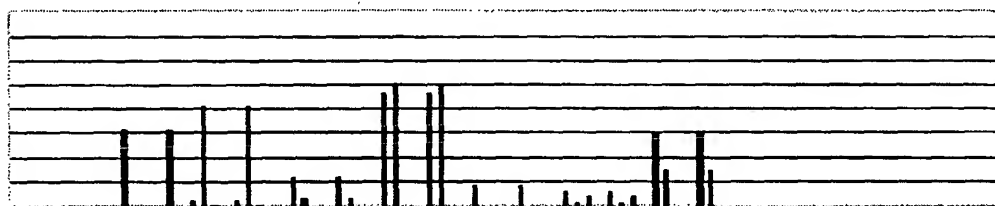


FIG. 28

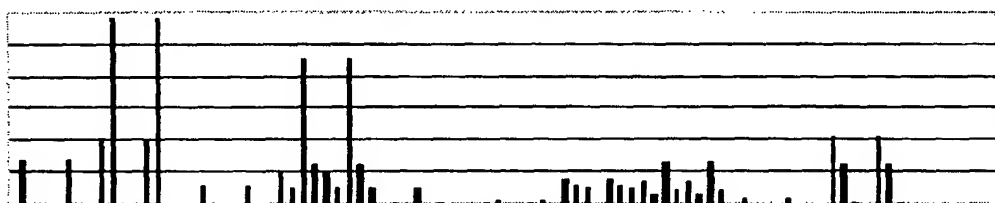
4



4



B



B

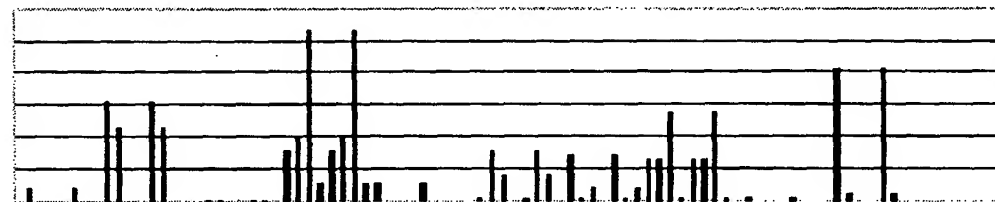


FIG. 29

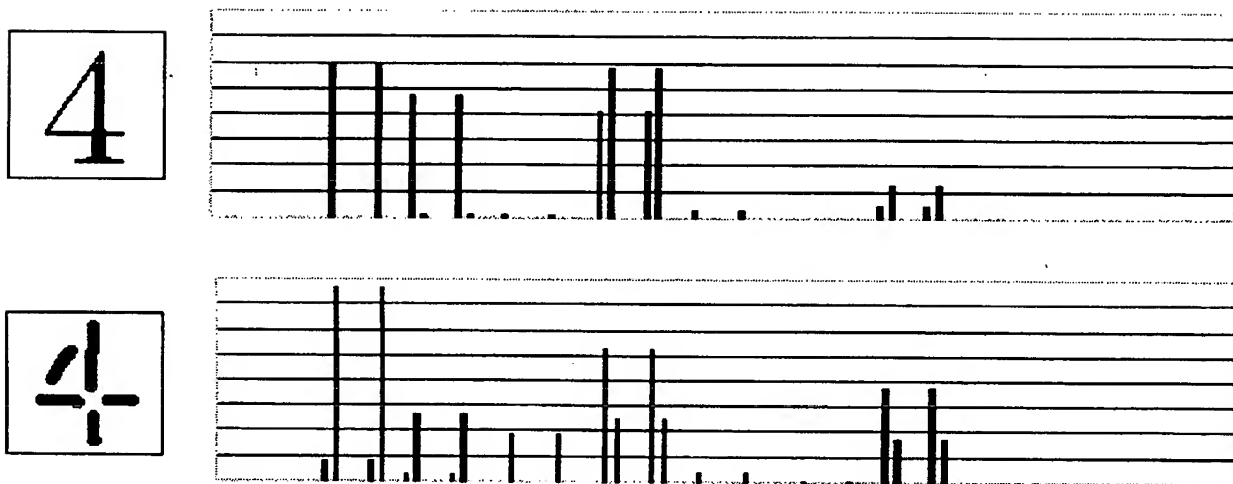


FIG. 30

6 7
6 7 7 8 9

FIG. 31

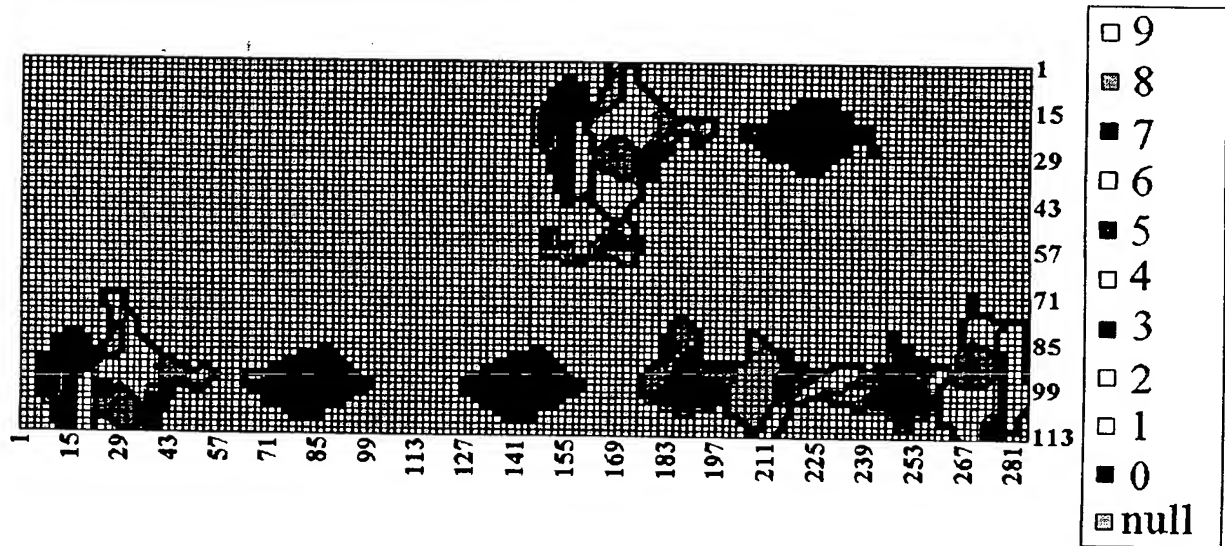


FIG. 32



FIG. 33

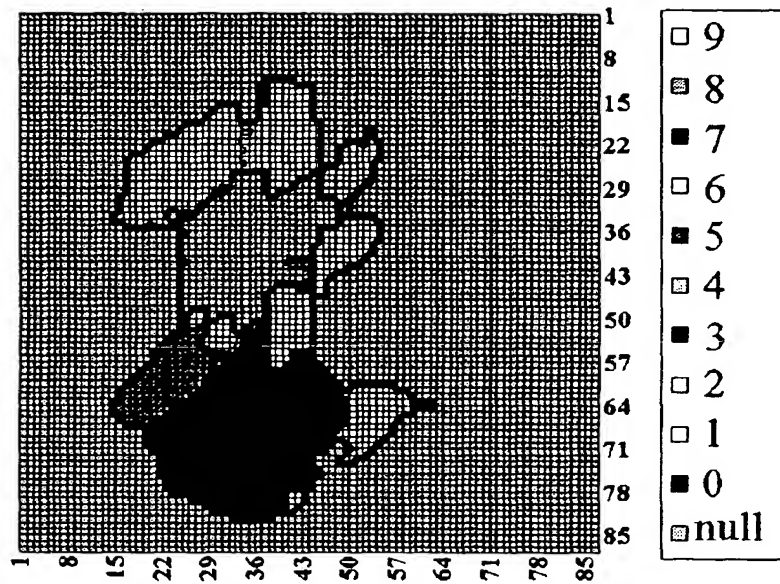


FIG. 34

7 3 1

FIG. 35

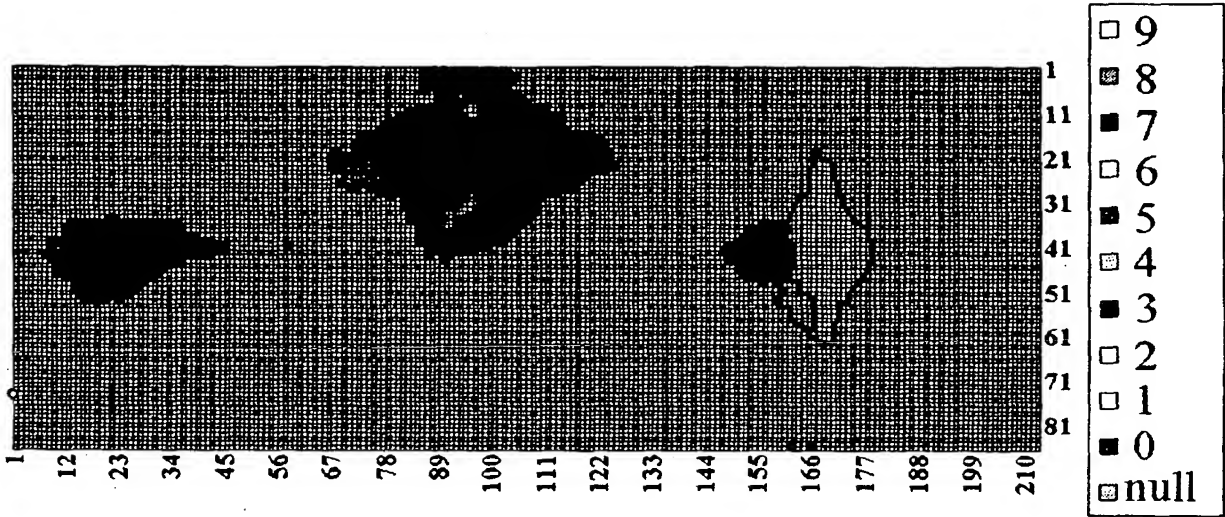


FIG. 36

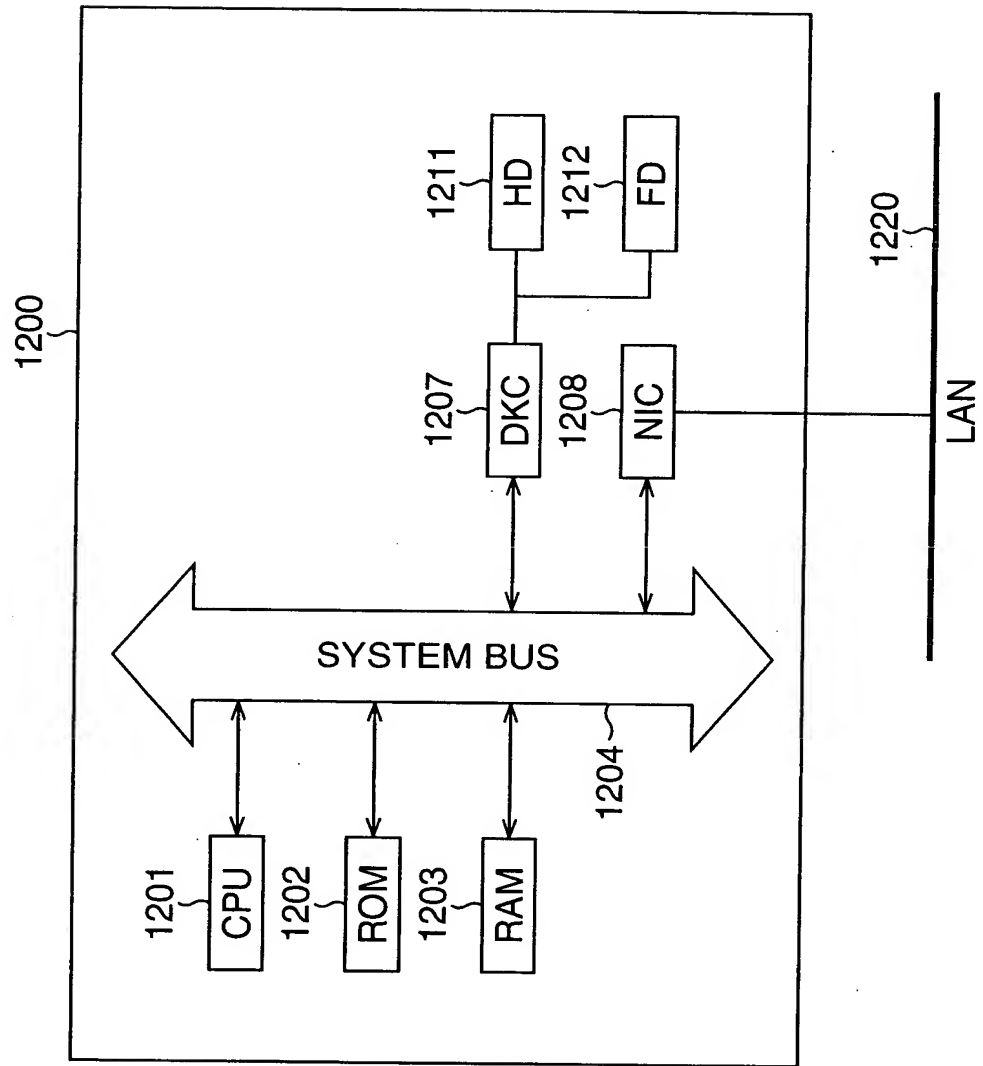


FIG. 37

ILL-DEFINED VECTORS

